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IBM Puts on the Gloves with MVS/ESA

The 1988 Large-Scale Systems Survey

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DATAMATION

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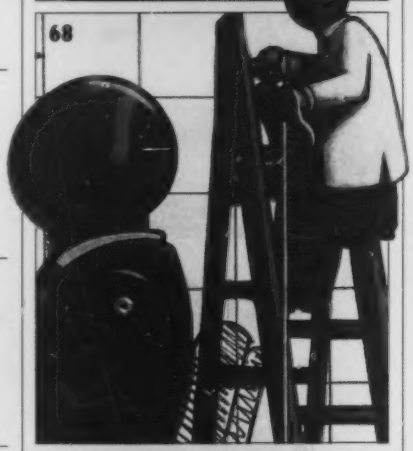

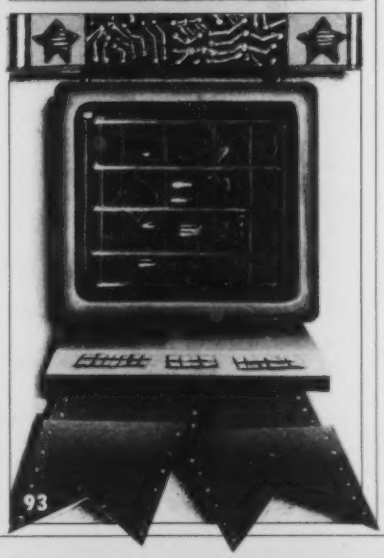

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1988 JESSE H. NEAL AWARD

1987 JESSE H. NEAL AWARD

Editorial

Who Speaks For Users?

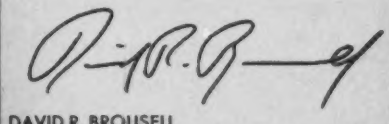
These days, the word standards appears on just about everyone's list of favorite causes. Nearly every computer supplier, software and hardware alike, proclaims allegiance to a plethora of standards, both de facto and de jure. In many ways, the pledges are understandable. No company, large or small, can afford to ignore market realities.

Now, however, the industry seems to be facing a high road of standardization unlike any that has come before. In the past, one could argue, there have been many significant standardization and standardization-like accomplishments: COBOL, ASCII, SNA, and, to stretch the argument to its limit, the 370 architecture itself. What's different this time around is that the standardization process is industrywide and comprehensive, and the potential is much more tangible. Witness the OSI model, the X/Open group, the Corporation for Open Systems, and such vendor-specific, but broad, initiatives as IBM's SAA, the Sun/AT&T Application Binary Interface effort, the continuing Unix/Posix process, and the 88open Consortium backing Motorola's 88000 RISC microprocessor, to name just some of the more prominent efforts.

This era of standardization seemingly has its own unique goal. That goal is openness. We say seemingly because we want to be sure that the ultimate beneficiaries of this process will be not so much a particular supplier or group of suppliers, but the users of information technology themselves.

We're well aware that many avenues already exist for users to participate in the debate. There are user groups, standards bodies with long-established procedures for comment, and even vendor polls of users' wants and desires. But compared with the ability of vendors to engage in the process—particularly large, well-funded vendors—direct user participation is slight indeed.

It is essential that you, the user of information technology products, have a direct say in determining which systems you will run your business on. We believe the time has come for all good men and women in the user community to be heard. Take an active role in standardization processes. Talk your management into allowing you to sit on a standards body and funding your participation. Get more vocal with your vendor. Make standards a personal pursuit, and, in the end, the process will be not just a favorite cause but a sure step to controlling your technological destiny.



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Letters

Perfect?

The reference to Texas Instruments' product being closer to my "perfect" model of Information Engineering (see Look Ahead, March 1, p. 10) than KnowledgeWare's leaves out some important distinctions between the two products. Texas Instruments' product supports only one methodology. Although Information Engineering will gain acceptance as a methodology over time, it is by no means the predominant methodology today. I believe that to meet today's requirements, a CASE tool must support the methodologies that MIS departments are currently using and allow MIS users to evolve at their own pace into more rigorous methodologies such as Information Engineering.

JAMES MARTIN
Hamilton, Bermuda

Put It on a Pc

I read "Economic Modeling Gains Despite Accuracy Concerns" (April 1, p. 43) with interest. A story well done. There are only a handful of big global models in use today, however, and they are mostly government supported for public policy research.

The action today is with pc and mini models, limited to company, product, or market segment forecasts. This is what your readers are being asked to select and support for the economic, marketing, or financial operations in their companies. Dozens of models and modeling software packages are available.

It is an interesting report on an unusual mainframe application but not something any of your readers would ever use.

JIM HAUGHEY
Chief Economist
Cahners Publishing Co.
Newton, Mass.

For a roundup of the action in economic modeling on pcs, see "Modeling with Micros" by David Stamps in the April 1, 1987 issue of DATAMATION.

EDI Compatibility

Regarding EDI in international trade—there is more to EDI than ANSI-X12! "EDI: Putting the Muscle in Commerce and Industry" (March 15, p. 56) discusses some of the aspects of EDI in the U.S. using the ANSI-X12 EDI Data Standard.

ICI America uses ANSI-X12 messages to communicate with many of its trading partners in the US-CIDX-Chemical Industries Data Exchange-EDI Project.

However there are wider aspects to EDI than the use of ANSI-X12.

Many European countries have already implemented EDI using the United Nations Guidelines for Trade Data Interchange (UN-GTDI) as a basis. In the U.K., we in ICI have been using TRADACOMS (a U.K. implementation of UN-GTDI) data standards for many years to support EDI in many industries, including chemicals, pharmaceuticals, fertilizers, paint, dyes, transportation, etc.

To overcome the problem of incompatibility between ANSI-X12 and UN-GTDI, a new international EDI data standard EDIFACT (Electronic Data Interchange for Administration Commerce and Transport) has been agreed to and is now an ISO Standard (ISO 9735).

ICI is using EDIFACT for International Trade and EDIFACT will become the de facto EDI data standard in most European countries. U.K. domestic trade may be an exception because of the large body of UN-GTDI users, and they, like some of our American cousins using ANSI-X12, will need some weaning onto a new standard.

ICI, with the rest of the European Chemical Industry, is using EDIFACT in an EDI trial covering most countries in Western Europe under the auspices of CEFIC, the Council of European Chemical Industries Manufacturers Association.

The trial includes the European subsidiaries of major U.S. chemcial companies such as Dow, Du Pont, Exxon (Chemicals), and Monsanto, as well as many European majors such as Akzo, Bayer, Ciba-Geigy, Hoechst, ICI, Montedison, and Shell Chemicals, which have U.S. subsidiaries.

Thus, EDIFACT will become the major EDI Data Standard for data communication between the U.S. and Europe. Dennis McGinnis of American Philips is the U.N. Raporteur for EDIFACT for USA and Canada.

MIKE FLYNN
Corporate EDI Manager
Imperial Chemical Industries
London

Correction

In "Prime Premieres Multiuser Midrange Machines" (Hardware, March 1, p. 93) a sentence read, "Prime Computer Inc. has unveiled two superminicomputers, one of which, it contends, is the most powerful supermini around." It should have read "most powerful office-installable supermini around."

IBM Puts on the Gloves with MVS/ESA

IBM's recently announced MVS/ESA operating system may drive demand for conversions to larger systems and put pressure on pcm competitors Amdahl and NAS, according to the 1988 DATAMATION/ Cowen & Co. large-scale systems survey. Users are trimming their dp budgets and focusing more on interactive and transaction-oriented applications, which is leading to larger pc purchases. The surge in pc demand has not translated into greater demand for mainframes, nor has it guaranteed the acceptance of PS/2 and OS/2.

A Datamation/ Cowen & Co. Partnership Survey

BY JEFF MOAD

A powerful new force, one that could skew the balance of mainframe power back in IBM's favor, has entered the large-scale systems arena. Big Blue's new MVS/ESA operating system, with its promise of increased virtual storage capacity, may stimulate user demand for conversions to larger hardware configurations. At the same time, the new software will force plug compatible competitors Amdahl and National Advanced Systems to find new ways to defend recently gained turf.

This is one of the key findings from the 11th annual DATAMATION/Cowen & Co. Computer and Telecommunications Survey. The survey polled users of IBM, Unisys, and NCR equipment, and, for the first time, included users of Cray supercomputers. Users were asked about their buying plans for the coming year, whether their perceptions of vendors have changed and, if so, in what way, and whether they plan to switch vendors.

Slow Growth Is Expected In 1988

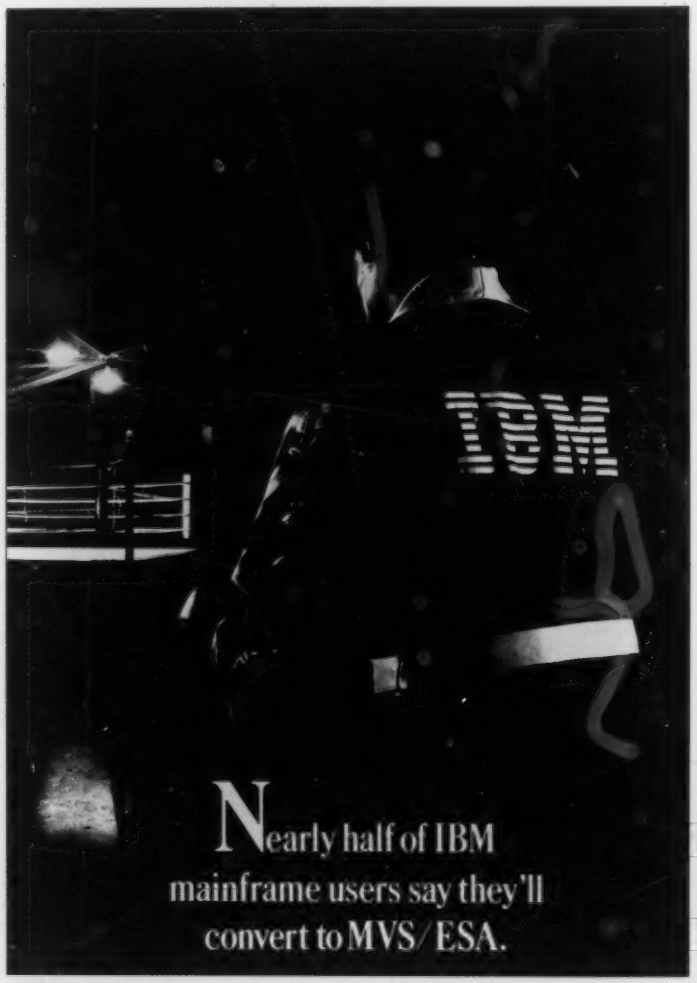
Users continue to cut the fat from their dp budgets and to focus more on interactive and transaction-oriented applications. That means they're buying more pcs. But, so far, the pc proliferation has failed to generate the surge in demand for mainframe capacity that vendors had hoped for.

At the same time, major mainframe product lines such as IBM's 3090 are beginning to show their age in the market. As a result, 1988 is shaping up as another sluggish year for IBM and other mainframe computer vendors.

There are some other potentially hopeful signs, particularly for IBM. Besides the embrace of the recently announced MVS/ESA, for the first time in several years IBM's lagging disk storage business seems poised for growth as users report increased storage purchase plans and IBM makes gains on its pcm storage competitors.

In addition to these findings, survey results based on 2,796 returned and validated responses reveal the following:

- IBM's vaunted 9370 midrange system is, if anything, losing momentum. Where the 9370 is being installed, it is usually merely offloading mainframe applications or replacing other IBM midrange systems.



Nearly half of IBM mainframe users say they'll convert to MVS/ESA.

• Users of the 1100, Sperry's key mainframe, are rapidly losing patience with the combined Burroughs/Sperry entity, Unisys. Many say they are unhappy and are seriously considering jumping ship.

• The increase in users planning new distributed and on-line transaction processing applications, while outstripping the demand for batch mainframe-based applications, is actually slowing compared with recent years. That suggests users are pausing before going ahead with new distributed applications.

• Anticipation is high for IBM's upcoming Silverlake midrange system. That anticipation, however, has not led to S/3X weakness so far.

• Anticipation is also high for DEC's entry into the OLTP market. In fact, DEC was named by a sizable portion of users planning OLTP purchases, even before it had officially introduced its OLTP offering.

• IBM's PS/2 has been a mixed success so far. A big percentage of users say they are standardizing on PS/2, but most so far are buying only the low-end 80286 versions and staying away from the larger 80386 systems. IBM's new PC operating system, OS/2, has been much slower penetrating large user sites.

• Users seem to have little hope that IBM's Systems Application Architecture (SAA) will help them dig out from under their applications development backlogs.

Value of New Installations Declines

Across the board, IBM, Unisys, and NCR users say that over the next 24 months, the value of their planned new installations as a percentage of their existing installed base will go down, albeit against generally strong 1987 survey readings. IBM users say new installations will represent 29% of their installed base, down for the second year in a row, from 31% in 1987 and 34% in 1986.

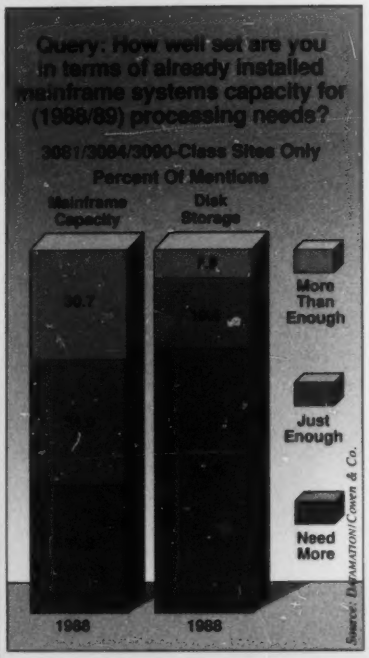
The drop-off is most stunning among Unisys users who say new installations over the next two years will amount to only 11% of the dollar value of the installed base—down substantially from last year's 25%. NCR users say new installations will be 19% of the installed base, slightly down from 21% last year.

For IBM, at least, much of the drop-off seems to be coming at the expense of the mainframe. Asked if they will need more mainframe capacity in 1988 and 1989, only 29% of IBM users answered yes. That figure, too, is down for the second year in a row (32% last year and 35% the year before). Twenty-nine percent of NCR and 30% of Unisys users say they will need more mainframe capacity. Both of these figures are up from a year ago.

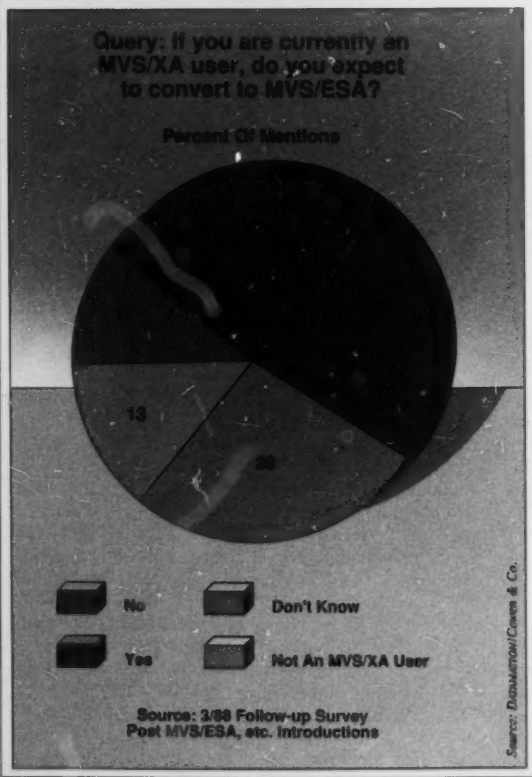
The downward pressure on hardware spending is reflected in users' budget planning. IBM users say increases in

Photograph by Walter Wick

Demand for More Capacity, Storage



Most XA Users Eying ESA


Query: If you are currently an MVS/XA user, do you expect to convert to MVS/ESA?
Percent Of Mentions
13
No
Don't Know
Yes
Not An MVS/XA User
Source: 3/88 Follow-up Survey Post MVS/ESA, etc. Introductions
Source: DATAMATION/Cowen & Co.

Charts by Hayes Cohen

their overall dp budgets will slide to 4.5% this year from 5.7% last year, although individual categories showed improved growth, except for staff salaries. Eight years ago, IBM users were increasing their dp spending at an annual rate of 13%. The rate has fallen almost every year since.

IBM users feel the need to increase capacity most acutely in the PC and disk storage areas. Sixty-nine percent say they need more PCs, and 61% more disk storage, while 33% say they need more mainframes, and 35% say they need more departmental systems. One hopeful sign is that, for the first time since 1984, IBM users indicate that they will increase slightly their spending rate on cpus and peripherals, to 2.4% this year from 1.8% last year. This is still far below the 8.8% spending rate increase seen among IBM users just four years ago.

While PC demand and spending continues to grow, mainframe work loads or demand are not yet increasing. A total of 59% of users say their PC installations either had no impact on their mainframe's workload or would actually decrease it. That figure hasn't changed much since 1985.

Nor is sluggish mainframe demand being helped by what seems to be a user perception that IBM's flagship large system, the 3090, is reaching the end of its product life. Although IBM's new large operating system, MVS/ESA, could forestall that impression, 69% of IBM users say they think the 3090 will be replaced by a new generation of mainframes—namely the so-called Summit series—by 1990 or sooner.

Some two-and-a-half years after the 3090 began shipping, it now represents over half of the dollar value of the installed base of 370-class IBM systems. The pace of price/performance improvement for the 3090 has slowed, however, even though most users expect a 3090-F upgrade by the end of this year. Planned 3090 installation activity as a percentage of the 3090 installed base is down, particularly among users in the critical manufacturing and communications/utilities applications areas.

Only among government and wholesale/retail users is planned 3090 installation activity as a percentage of the installed base up significantly. But, a higher percentage of that 3090 installation activity is to upgrade existing systems. As a result, average 3090 selling prices have dropped to $3.3 million in 1988 from $5.6 million a unit two years ago. Users say a market for used 3090s is beginning to emerge, as an increasing number of 3090s begin to come off IBM Credit Corp. leases, and 41% plan to lease their 3090s from third parties over the next 24 months compared with the 33% who planned to do so last year.

IBM Discounting Is on the Rise

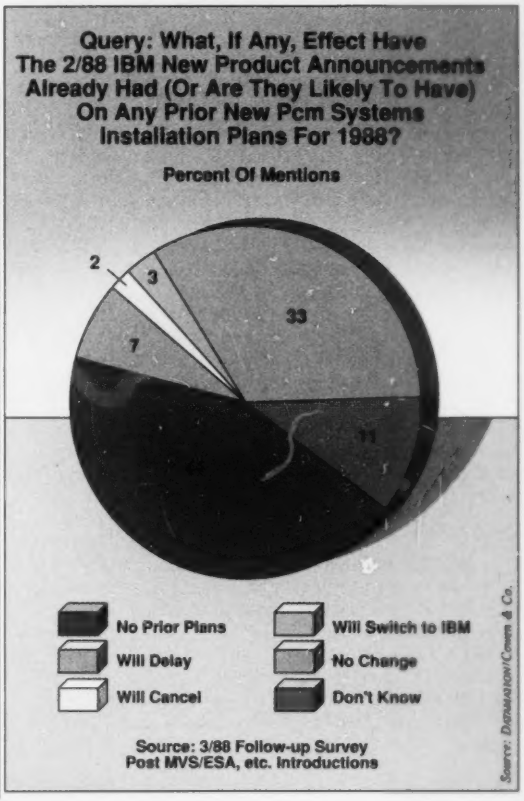
In an attempt to boost 3090 demand, IBM has been willing to deal. Users say it has been increasing its mainframe price discounting, even as its pcm competitors have been reducing the discounts they offer. This year, users are seeing IBM offer discounts at around 8.4% off list prices. That's up a little from 7.6% last year. By contrast, Amdahl has cut its discounts to 15.8% from 17.3%, and NAS has trimmed its aggressive prices considerably, to 16.8% this year from a 22% discount rate last year.

IBM also seems to be using its On-Site Test Allowance (OSTA) program increasingly as a competitive tool. This year, 32.1% of 308X and 3090 sites received an OSTA, a slight edge over last year's 29.2%.

But neither IBM's sales incentives nor tighter dp budgets have slowed IBM's pcm competitors, Amdahl and NAS. Each has benefited from strong product cycles in the last year. Although IBM has been replacing large pcm systems at some accounts, Amdahl and NAS combined have doubled their dollar value share of the compatible mainframe market, going to 18% this year from 9% last year. Amdahl had just under 14% of that, and NAS just under 5%, according to the survey.

The pcm vendors also posted gains in the way they are perceived by users. This year, 17% reveal that they are considering a pcm purchase, up from 15% last year. Among those who are considering a switch, 39% say their attitude toward pcms has become more favorable in the last year; 3% say it is now less favorable. Even among those with no inter-

ESA Chills Pcm Installation


Query: What, If Any, Effect Have The 2/88 IBM New Product Announcements Already Had (Or Are They Likely To Have) On Any Prior New Pcm Systems Installation Plans For 1988?
Percent Of Mentions
2
3
33
7
11
No Prior Plans
Will Switch to IBM
Will Delay
No Change
Will Cancel
Don't Know
Source: 3/88 Follow-up Survey Post MVS/ESA, etc. Introductions
Source: Datamation/Cowen & Co.

est in switching, 12% think more of pcms this year, while 7% think less of them.

Although it seems to be losing market share to the pcms, IBM has been scoring some attitude points itself, thanks largely to its so-called "Year of the Customer" campaign in 1987. Twenty percent of users say they think more favorably of IBM now; 14% think less favorably of it. This reverses a two-year trend that saw IBM customers either split on their opinions toward IBM, or hold a decidedly less favorable opinion toward it.

Among those mainframe users who think less of IBM now, however, the largest group, 38%, say their attitude is due to what they call poor support and service. (The incidence of unhappy 43XX users singling out IBM support and service, at 45%, is even higher.) If these concerns are widespread, they could spell trouble for IBM's plan to expand its service and support activities to encompass systems integration.

Almost Half Plan Conversion to MVS/ESA

Despite tighter user budgets, a maturing product, and increased competitive pressure, the news is not all bad for IBM's mainframe business: the company's new MVS/ESA operating system is being well accepted by users, many of whom say they are planning to convert to the new systems software before 1990. Cowen & Co., which did a supplemental user survey following the MVS/ESA announcement, found that 48% of IBM mainframe users are already planning to convert to ESA, which significantly expands virtual storage capacity, and 54% of them will convert from MVS/XA to ESA this year or next.

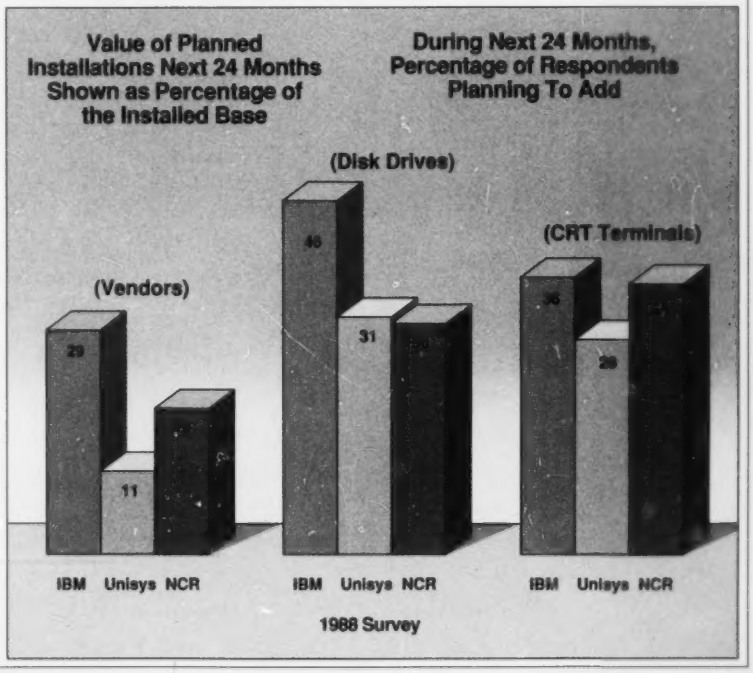
Most significantly for IBM, a quick migration to MVS/ESA could mean accelerated demand for its top-of-the-line 3090-E models and a chance for IBM to turn the tables on its pcm competitors. Thirty-six percent of 308X users and 43% of non-E 3090 users say it's very likely they will upgrade to 3090-E systems to get MVS/ESA, which runs only on the E models.

Already, MVS/ESA seems to be causing some pcm customers to reevaluate their vendor. The pcms say they won't be able to run ESA on their hardware for a year or more after they see it. As a result, 7% of pcm users will delay mainframe orders, another 2% will cancel orders, and another 3% will jump back to IBM. Eleven percent say they don't know what they will do.

Another possible plus for IBM this year is its disk and tape storage business. The percentage of users planning to add disk and tape capacity is up from last year, and IBM seems poised to recapture compatible storage market share as it accelerates shipments of its triple-capacity 3380 disk drives. IBM's share of the compatible disk market by units will rise to 87% compared with 82% last year, and 32% of those 3380 purchases will be of new, triple-capacity drives. Big Blue could be tripped up, however, by the recently announced delays in the shipment of its new cache memory disk controllers.

IBM will make similar gains in the tape drive market. Led by its 3480 cartridge tape drive, it will increase its share of tape drive pro-

Big Vendors' Installation Activity



curements to 84% in 1988, up from last year's 78%.

Systems software, database management systems in particular, will be a strong market for IBM and its DB2 relational product. In the past year, DB2 has gone from running on 6% of IBM mainframes to 11%, along the way surpassing Software AG's ADABAS, Cincom's Total-Supra-Ultra products, ADR's Datacom, and IBM's own DL/1. Meanwhile, DB2 will continue to surge. Forty-one percent of IBM users going to a DBMS in the next two years say they plan to install DB2—that's more than four times the total for any other DBMS. Oracle also is popular among those planning a DBMS, going to 10% market share on IBM mainframes within two years from 1% today.

Much Anticipation for Silverlake

In line with the 9370's sluggish start, users are not flocking to VM, the principal 9370 operating system. This year, only 42% of 370 users say they are running VM. Last year, 43% said they would. Only an additional 6% are planning to use VM before 1990.

That's not to say that the use of midrange systems doesn't continue to grow or that IBM has lost the attention of midrange users. By far the highest level of IBM user anticipation is for the so-called Silverlake S/3X, expected to be announced later this year. Sixty-five percent of IBM users anticipate an S/3X announcement this year.

That high expectation level isn't leading to soft S/3X orders in the meantime. Only 3% of IBM users say they've delayed or cancelled an S/3X order, compared with 21% who have delayed or cancelled a 9370 order.

In contrast to the sluggish growth for mainframes, demand for minicomputers and distributed processing systems continues to grow at a respectable clip, although more slowly than in recent years. Overall, the percentage of users implementing distributed systems, now at 38%, will grow by 17% over the next two years to 55%.

In contrast to the recent trend that has seen the percentage of distributed data processing users grow from 24% in 1983, the percentage of DDP users was essentially flat—in the region of 39%—between 1987 and 1988. This suggests that many users are pausing before implementing systems, possibly to decide whether to implement minicomputer or pc-based systems. Also flattening out was the number of users—about half—implementing on-line transaction processing systems.

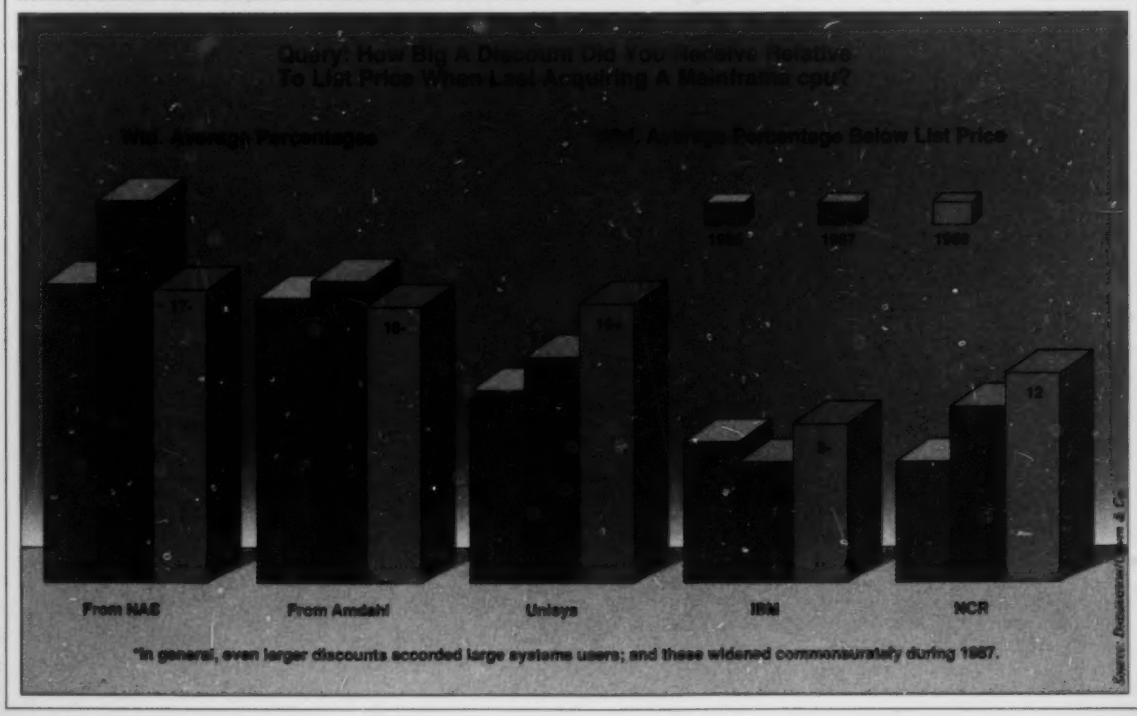
While the vast majority of users are selecting the networked pc approach to distributed processing, pcs are not pushing minicomputers out of the distributed market. Sixty-four percent of users say they plan to emphasize pcs for their distributed applications versus 33% choosing minicomputers. Those splits are essentially flat compared to a year ago.

Little Interest In Unix From IBM Users

Among midrange users, interest in Unix is also growing rapidly, but many mainframe users—particularly IBM users—apparently couldn't care less about Unix. One third of NCR users say they are very interested in Unix for departmental systems. This is up from 22% last year. Twenty-six percent of Unisys departmental users believe Unix is very desirable, a considerable leap from last year's 14%. Only 7% of IBM mainframe users desire Unix, however, and that number hasn't increased since last year.

At the low end, IBM's year-old PS/2

Discounting: Pcms Down, Big Three Up



Charts by Hayes Cohen

PC replacement is rapidly establishing itself as the new standard among corporate users, but only the entry-level 80286-based systems are being widely embraced today. The new operating system for the PS/2, OS/2, still hasn't established broad appeal among users. Sixty percent of IBM users this year feel they need still more pcs, and 69.4%, say they will standardize on PS/2 in the future, compared with 53.2% of IBM users who last year cited PS/2 as their pc standard at the time of the August 1987 DATAMATION/Cowen & Co. mini/microcomputer survey. Moreover, PS/2 is gaining among Compaq users. Last year, only 16.8% of Compaq users said PS/2 would be their standard, this year 42.2% say it will.

Hurdles Ahead for Extended Edition

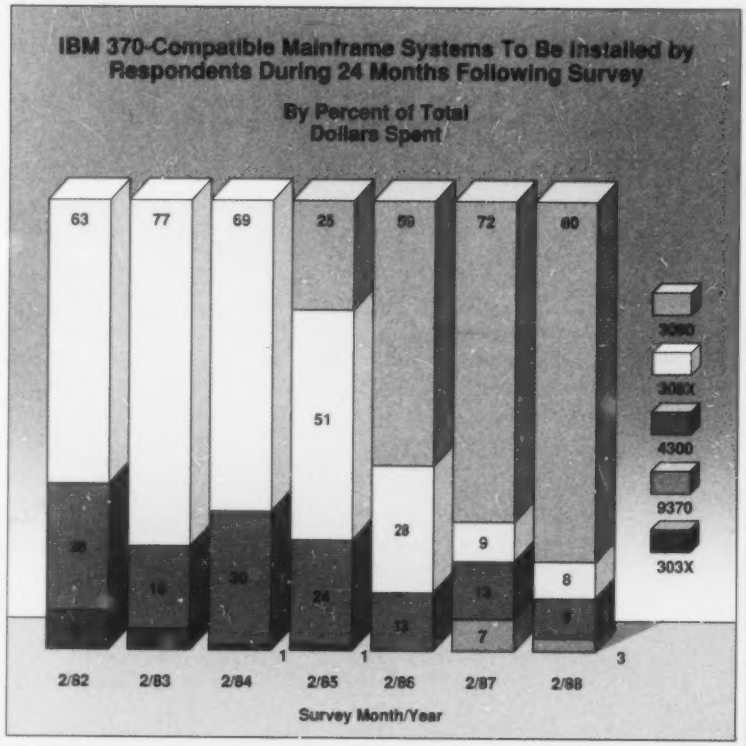
Despite the strong acceptance for PS/2, there are troubling signs. For one thing, by far the majority of PS/2s planned by users—73.5%—are the 80286-based Models 30 and 50. Only 9.7% will be PS/2 Model 80s. That suggests it will be difficult for IBM to establish its OS/2 Extended Edition operating system as a standard. Many of OS/2 Extended Edition's most sophisticated features can be exploited only by high-end PS/2s.

Also, despite acceptance of the PS/2 as a standard, IBM continues to lose its share in the pc market overall. Users said last year that they bought IBM PCs 59.3% of the time, and 68.1% said so the year before. This year, they plan to buy IBM 57.7% of the time. Zenith picked up the biggest part of planned purchases, going to 11.3% planned this year from 10.4% of systems bought in 1987.

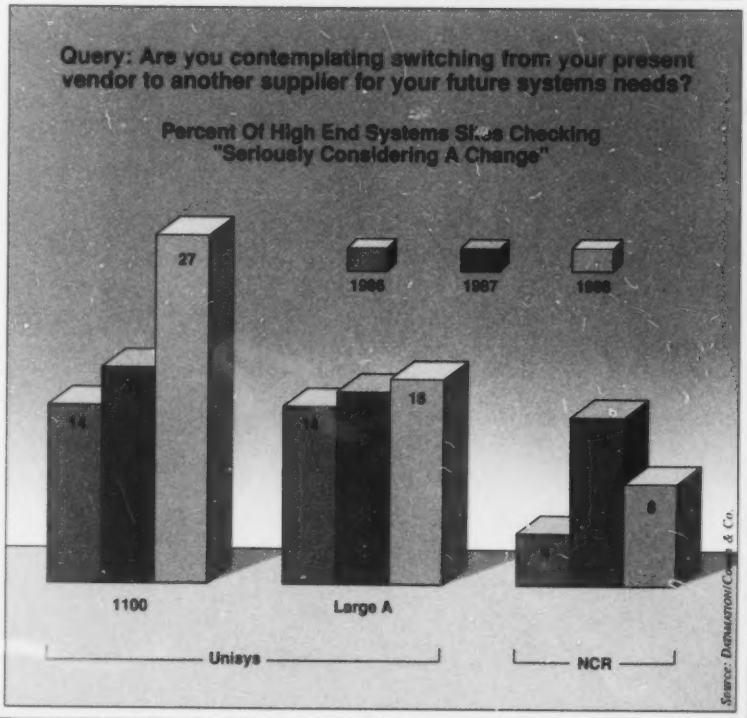
IBM's share drop could be attributable to the company's decision to stop manufacturing its older PC designs after announcing PS/2. Still, in the long run, IBM may have made the right move. Not only do users say they are standardizing on PS/2, but their attitudes toward clone vendors is less favorable. Seventeen percent of all users think less of clone vendors today against the 12.7% who said so a year ago. This feeling is even stronger among Compaq users—19.8% are now less favorable to clones; last year, 10.3% were.

As indicated by user emphasis to date on 80286-based versions of the PS/2, there is no ground swell of support for OS/2. Only 33.7% of users surveyed plan to standardize on OS/2. That's up from 24.7% last year, but it still lags far behind the 61.1% who say they're stick-

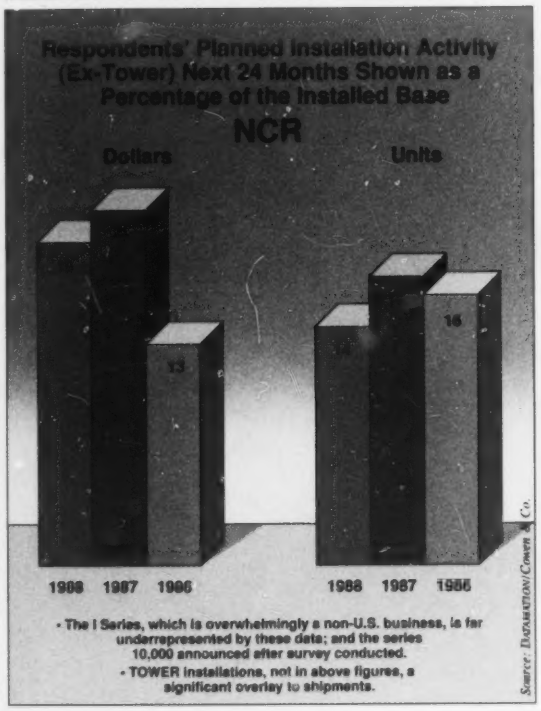
3090 Strong, 9370 Sluggish for IBM



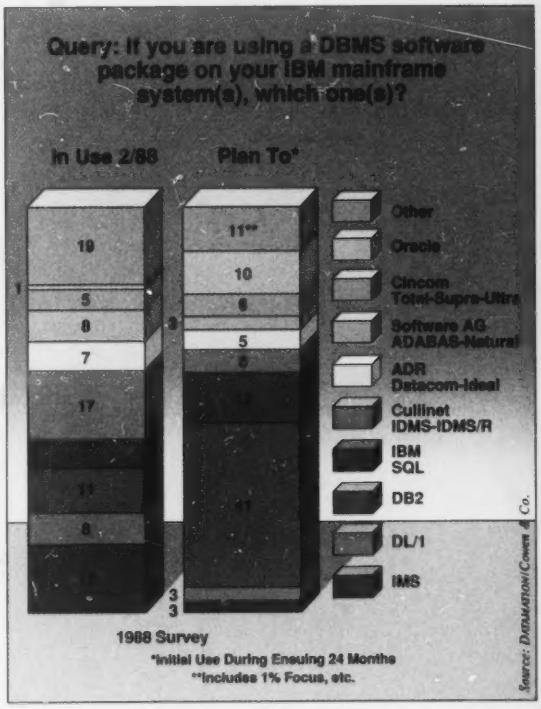
1100 Users Seriously Consider Switching



NCR's Installation Pace


Respondents' Planned Installation Activity (Ex-Tower) Next 24 Months Shown as a Percentage of the Installed Base
NCR
Dollars
Units
13
16
1988 1987 1986
1988 1987 1986
• The I Series, which is overwhelmingly a non-U.S. business, is far underrepresented by these data; and the series 10,000 announced after survey conducted.
• TOWER installations, not in above figures, a significant overlay to shipments.
Source: Datamation/Cowen & Co.

IBM, Oracle Lead In DBMSs



Survey Method

Results of the 11th annual DATAMATION/Cowen & Co. Computer and Telecommunications Survey were drawn from 2,796 responses to 51,781 questionnaires that were mailed to DATAMATION subscribers in the U.S. and Canada during the week of Jan. 11, 1988. The vast majority of questionnaires, 44,495, went to IBM users. Unisys users accounted for 5,500; 1,400 went to NCR users; and 386 went to Cray users.

Cowen & Co. performed a limited follow-up survey of IBM customers immediately following the Feb. 15 announcement of IBM's MVS/ESA operating system. On March 2, a total of 678 questionnaires were mailed out; 261 were returned and used.

The largest group of IBM users in the survey population, 29%, came from companies or organizations with annual revenues or budgets over $500 million and between $51 million and $250 million.

ing with the older MS/DOS operating system. That could change, however, when IBM begins shipping OS/2 Extended Edition later this year.

While the news is mixed for IBM's mainframe business, it looks bad for other noncompatible mainframe vendors. Among Unisys and NCR users, dp spending is even tighter, order cancellations are up, and, at least in the Unisys base, the danger of defections is higher. Twenty-seven percent of NCR users indicate they will spend less on hardware this year. Sixteen percent will spend more. Unisys users are almost evenly split between those spending less on hardware and those spending more on hardware.

Wide Cracks Appear in the 1100 Base

The number of Unisys and NCR users canceling or considering canceling orders is way up compared with IBM. Forty-seven percent of Unisys users planning to install new systems and 45% of NCR users fall in this category, compared with 20% of IBM users. Particularly upset are users of the aging Sperry 1100 mainframe line. Twenty-seven percent of Sperry 1100 users say they are seriously considering changing vendors, compared with 17% last year. Users of the newer Unisys A Series mainframes are more satisfied, and NCR users are actually less likely to change vendors now than a year ago. Only 8% are seriously considering a change, down from last year's 13%. When they consider a change, most of those users look in the direction of the IBM-compatible sphere.

As usual, Unisys and NCR users cite applications software as the area most in need of attention from their vendors, and, even though they are cutting back or holding the line on hardware spending, most Unisys and NCR users are planning to spend more on outside software.

The same holds true for IBM users, 35% of whom will spend more on software this year; only 12% will spend less. That should bode well for IBM's new Applications Software division and for other third-party applications vendors. ■

The complete survey results are available for purchase. For more information or to order your copy, call DATAMATION market research manager Laraine Donisi at (212) 463-6893.

DATAMATION/PRICE WATERHOUSE SURVEY

Uptick In IS Software Spending

BY NORMAN STATLAND

An overwhelming majority of IS executives say they'll either maintain or increase their spending on systems software and applications software over the next 12 months. According to the first-quarter 1988 DATAMATION/Price Waterhouse IS survey of 973 information technology executives, this is the strategy of 93% of the panel.

The executives are almost exactly split between those who plan to increase spending on software and those who will maintain their spending level on the acquisition of systems software and applications software in 1988. Overall, 46% plan to increase expenditures and 47% expect no change in expenditures.

The percentage of respondents who expect to spend more on systems software and applications software has dropped slightly compared with the last DATAMATION/Price Waterhouse IS Survey, which was conducted in late 1987. Last year, 49% said they expected to spend more on systems software and 47% said they expected to spend more on applications software. The percentage of IS executives who expect to spend less on systems software has grown to 7% from the earlier survey's 5%.

The most striking change in the IS panel's plans is reflected in hardware purchase decisions. Anticipating the next 12 months in late 1987, 61% of the respondents said their companies would increase their spending on hardware. From the perspective of the first quarter of '88, however, only 50% of the IS survey panel report their companies would spend more on hardware over the coming 12 months in the most recent survey. The percentage of respondents who predict that their hardware expenditures will stay "about the same" over the next 12 months rose to 39% from the earlier survey's 32%, and the share of those who say they'll spend less went to 9% from 6%.

The IS survey panel is composed of senior IS executives in organizations that primarily use mainframes and superminicomputers. While the panel was virtually evenly divided between increasing spending for software and maintaining the current amount, the panel—mainframe and mini users alike—was much more consistent when asked about plans to increase the number of systems and programming staff. Over 67% of the panel members indicate that they will not increase the number of staff.

In the earlier survey, 63% reported they weren't increasing systems staff and programming staff. In both surveys, the percentage of those who say their staffs will remain about the same stayed virtually constant. But the number that expects these staffs to decrease has grown to almost 9% from just under 6%.

MAY 15, 1988

- **The percentage of IS executives who expect to spend less on systems software has grown to 7%, up 2% from the earlier survey's finding.**
- **The process manufacturing, government, and utilities sectors will lead in increased spending on systems software.**
- **Half of the panel report that their companies will increase hardware spending over the next 12 months.**
- **Two thirds say they will not increase their systems and programming staff.**

For 1988, the conclusion is that IS executives expect to invest more in the acquisition of software, which will enable existing staff to contribute more to the overall benefits gained by corporations from the use of information technology.

In the same vein, it is very notable that only 22% of the installations surveyed intend to increase the dollars spent on outside data processing staff or services, whereas 58% intend to spend about the same amount as last year. This follows the trend of spending more on the purchase of applications software and systems software, while spending less on staff or outside services.

In the lead among IS installations for increasing spending on systems software are the process manufacturing (51%), government (57%), and utilities (51%) sectors. IS executives in the finance industry will lag behind the rest in the purchase of new systems software; only 38% report increasing systems software purchases over the next 12 months. Furthermore, the DATAMATION/Price Waterhouse survey indicates that, in the minicomputer arena, the percentage of organizations that are extending their processing activities to depend on a large number of systems software components remains relatively consistent.

Analysis of the responses to questions on how the panelists are managing the use of applications software shows that organizations in process manufacturing and government expect to increase their applications software purchases by a notable 47% and 51%, respectively.

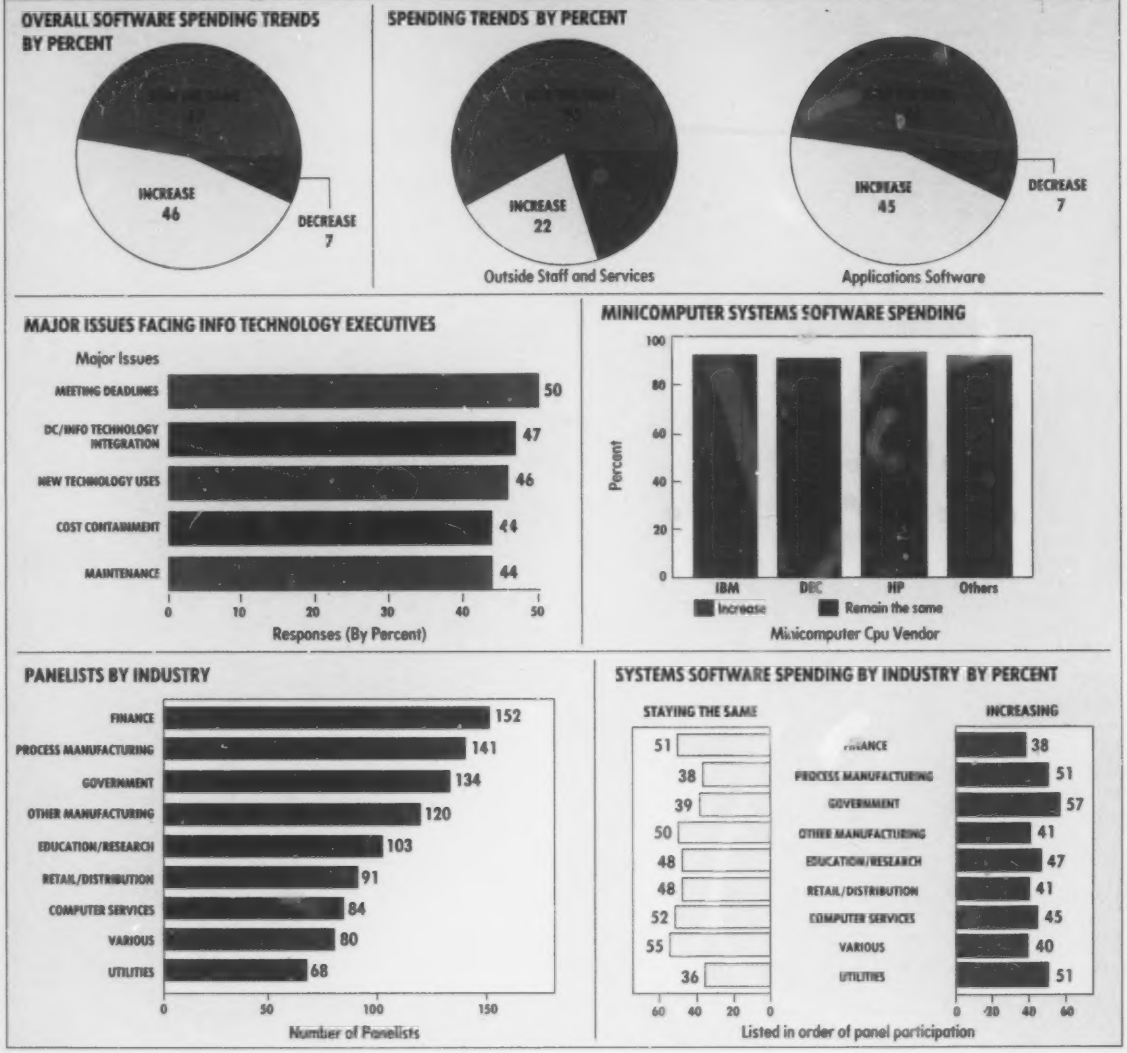
The retail industry will increase its purchases of applications software by only 31%, trailing other industries. Additional analysis reveals that the mainframe vendors for which increased purchase of applications software is most frequently put to work are IBM (45%) and Unisys (50%).

The major issues faced by the IS executives on the panel retain the same rank as in the previous survey. The top three spots in the headache hit parade were again project deadlines, integrating communications and data processing, and predicting what impact technological advances will have on extending more services to end users or getting more computing power from the current equipment or staff.

As the markets of U.S. corporations become more consumer-segment-oriented, the central demand on IS is to provide flexibility—i.e., how to access shared data to respond to the diverse needs of managers trying to do a variety of jobs, ranging from production scheduling through manufacturing to distribution. The implications of these concerns reveal much about the state of IS today. Here are the five issues cited most often.

• Meeting project completion deadlines was mentioned by 50% of the respondents. With the proliferation of personal

Trends for the Next 12 Months



computers and the distribution of processing functions among multiple sites, advances in the use of productivity tools have been countered by increases in design complexity. The conclusion is supported by the fact that the 62% of organizations with 5,000 to 10,000 employees will increase their spending on decentralized systems support.

• Integrating telecommunications and data processing was cited as a major issue by 47% of the panel. The IS executive is clearly concerned by the implications—both technical and strategic—of the interface of communications networks and computer processing facilities so that networks will accommodate a variety of end-user traffic, i.e., low-volume and/or low-density transaction activity versus high-volume and/or high bursts of activity.

• Planning or predicting how to use new advances in technology—mentioned by 46% of the panel, primarily in the hardware and software area—is seen as essential in order to increase the extent and quality of services provided to its users by the IS organization without increasing costs.

• Containing costs is (perhaps perennially) on the minds of 44% of the IS executives. Holding the line on the cost of operations and systems development in the face of the ever increasing tide of user demands for more applications and more integrated applications reporting is a central concern.

• Providing systems and program maintenance is an evergreen concern, cited by 44% of the panel. How to provide enhancement, often imprecisely labeled as program maintenance, for aging systems that were perhaps never designed to do the things that are being asked of them today is a concern of IS execs.

These issues represent the major problems that will be facing IS executives as they move through the year. Since these problems appear to be present in almost half of the installations surveyed, the next DATAMATION/Price Waterhouse survey will address the mechanisms that are being utilized by IS management to deal with them. The findings will be reported in the next quarterly update. ■

Norman Statland is the national director of information resource management services at Price Waterhouse. He is the author of Controlling Software Development *(John Wiley & Sons, New York, 1986).*